

# ***Water Quality Report Vineyard Town-2014***

We're pleased to present to you this year's Annual Drinking Water Quality Report. This report is designed to inform you about the quality of the water and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water. Our water sources are from Lindon, Orem City, and Central Utah Water Conservancy District Water Development Project (CWP).

This report shows our water quality and what it means to you our customer.

If you have any questions about this report or concerning your water utility, please contact Sullivan Love at 801-376-0419. We want our valued customers to be informed about their water utility. If you want to learn more about decisions regarding our drinking water and Vineyard Town, please attend any of our regularly scheduled Town Council meetings. They are held on the second and fourth Wednesday of each month at 7:00 pm.

Vineyard Town routinely monitors for constituents in our drinking water in accordance with the Federal and Utah State laws. The following table shows the results of our monitoring for the period of January 1<sup>st</sup> to December 31<sup>st</sup>, 2014. All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some constituents. It's important to remember that the presence of these constituents does not necessarily pose a health risk.

In the following table you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms we've provided the following definitions:

***ND/Low - High*** - For water systems that have multiple sources of water, the Utah Division of Drinking Water has given water systems the option of listing the test results of the constituents in one table, instead of multiple tables. To accomplish this, the lowest and highest values detected in the multiple sources are recorded in the same space in the report table.

***Parts per million (ppm) or Milligrams per liter (mg/l)*** - one part per million corresponds to one minute in two years or a single penny in \$10,000.

***Parts per billion (ppb) or Micrograms per liter (ug/l)*** - one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

***Parts per trillion (ppt) or Nanograms per liter (nanograms/l)*** - one part per trillion corresponds to one minute in 2,000,000 years, or a single penny in \$10,000,000,000.

***Picocuries per liter (pCi/L)*** - picocuries per liter is a measure of the radioactivity in water.

***Nephelometric Turbidity Unit (NTU)*** - nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

***Action Level (AL)*** - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

***Maximum Contaminant Level (MCL)*** - The "Maximum Allowed" (MCL) is the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

***Maximum Contaminant Level Goal (MCLG)*** - The "Goal"(MCLG) is the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

					Lindon City		Orem City			CWP			Typical Source of Contaminant or Other Comments
Microbiological	Test Date	Units	MCL	MCLG	Level Detected ND/Low-High	Violation	Highest No. of Positive Samples	2014 Range	Violation	2014 Average	2014 Range	Violation	
Total Coliform	2014	% positive per month	5%	0	1	NO	1	ND-1	NO	0	0	NO	Coliforms are naturally present in the environment; as well as feces; fecal coliforms and E. coli only come from human and animal fecal waste.
Fecal Coliform and E.coli	2014	% positive per month	tt	tt	ND	NO				0	0	NO	Fecal coliforms and E. coli only come from human and animal fecal waste.
Inorganic Contaminants	2014	Units	MCL	MCLG	Level Detected ND/Low-High	Violation	Highest Level Detected	2014 Range	Violation	2014 Average	2014 Range	Violation	Typical Source of Contaminant
Arsenic	2014	µg/l	10	0	600 ppt 2013	NO	3.34	ND-3.34	YES*	2	1.6-2.3	NO	Erosion of natural deposits; runoff from orchards, runoff from glass and electronics production wastes.
Barium	2014	mg/l	2	2	61 ppb 2013	NO	0.09	0.05-0.09	NO	72.3	66-76	NO	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Chromium (total)	2014	µg/l	100	100			7.9	ND-7.9	NO				Discharge from steel and pulp mills; erosion of natural deposits
Fluoride	2014	mg/l	4	4			0.353	0.20-0.35	NO	0.3	0.3-0.3	NO	Erosion of natural deposits; discharge from fertilizer and aluminum factories
Nickel	2013	ppb	10000	10000	5 2013	NO			NO				Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Nitrate	2014	mg/l	10	10	ND-3800 ppb	NO	2	0.37-1.64	NO	0.2	0.2-0.2	NO	Runoff from fertilizer use; leaking from septic tanks, sewage; erosion of natural deposits
Selenium	2014	µg/l	50	50	5 2013	NO	3.34	ND-3.34	NO				Erosion of natural deposits; mining or metal refinery discharge
Radioactive Contaminants	2014	Units	MCL	MCLG	Level Detected ND/Low-High	Violation	Highest Level Detected	5/yr Range	Violation				Typical Source of Contaminant
Gross Alpha	2014	pCi/L	15	0			3.8	ND-3.8	NO	2.7	0-5.4	NO	Erosion of natural deposits of certain minerals that are radioactive and may emit a form of radiation known as alpha radiation.
Gross Beta	2014	mrem/yr	4	0			0.49	0.49-0.49	NO				Erosion of natural deposits.
Combined Radium	2014	pCi/L	5	0			3.1	0.86-3.1	NO	0.79	0.68-0.90	NO	Erosion of natural deposits.
Disinfectants and Disinfection By-products	2014	Units	MCL	MCLG	Level Detected ND/Low-High	Violation	Highest Level Detected	2014 Range	Violation	2014 Average	2014 Range	Violation	Typical Source of Contaminant or Other Comments
Chlorine	2014	mg/l	4	4	300 ppb 2013	NO	1.90	0.43-1.90	NO				Drinking water disinfectant
Total Trihalomethanes (TTHM)	2014	mg/l	80	0	10 2013	NO	58.5	ND-58.5	NO				By-product of drinking water disinfection.
Haloacetic Acids (HAA5s)	2014	mg/l	60	0	15 ppb 2013	NO	31.0	ND-31.0	NO				By-product of drinking water disinfection.

Pesticides/PCB's/SOC's	2014	Units	MCL	MCLG		Level Detected ND/Low-High	Violation	Highest Level Detected	2014 Range	Violation	2014 Average	2014 Range	Violation	Typical Source of Contaminant or Other Comments
Bis(2-ethylhexyl) adipate	2014	µg/l	6	0				ND	ND-0.67	NO				Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
All other Parameters	2014	µg/l	Varies	Varies				ND	ND	NO				Various sources
VOC's	2014	Units	MCL	MCLG		Level Detected ND/Low-High	Violation	Highest Level Detected	2014 Range	Violation				Typical Source of Contaminant or Other Comments
Chloroform	2014	µg/l	NE	70				45.5	0-45.5	NO				Byproduct of drinking water disinfection
Bromodichloromethane	2014	µg/l	NE	0				12.1	0-12.1	NO				Byproduct of drinking water disinfection
All other Parameters	2014	µg/l	Varies	Varies				0.034	0.020- 0.034	NO				Various sources
Organic Material	2014	Units	MCL	MCLG		Level Detected ND/Low-High	Violation	Highest Level Detected	2014 Range	Violation				Typical Source of Contaminant or Other Comments
Total Organic Carbon	2014	mg/l	TT	NE				1.7	1.2-2.0	NO				Naturally occurring
UV-254	2014	1/cm	UR	NE				0.025	0.005- 0.061	NO				Naturally occurring. This is a measure of UV- absorbing organic com-pounds.
Lead and Copper		Units	AL	MCLG		90 <sup>th</sup> Percentile	Violation	90 <sup>th</sup> Percentile	# of sites over AL	Violation				Typical Source of Contaminant
Copper		mg/l	1.3	1.3		119 2013	NO	0.134	0	NO				Erosion of natural deposits; corrosion of household plumbing
Lead		µg/l	15	0		1600 ppt 2013	NO	2.82	0	NO				Erosion of natural deposits; corrosion of household plumbing
Secondary Inorganics <i>Aesthetic standards</i>		Units	MCL	MCLG		Level Detected ND/Low- High	Violation	Highest Level Detected	Average	Range	Violation			Typical Source of Contaminant
Iron		mg/l	SS=30	NE				21.6		ND- 21.6	NO			Erosion of natural deposits 2000 Data
Manganese	2014	mg/l	SS=0.05	NE										Erosion of natural deposits.
pH	2014		6.5-8.5	NE				8.24	7.8	7.7- 8.24	NO			Naturally occurring
Sulfate	2014	mg/l	SS=250	NE		30-103 2013	NO	67	42.3	12-67	NO			Erosion of natural deposits.
Total Dissolved Solids	2014	mg/l	SS=500	NE		251-484 2013	NO	468	311	120- 468	NO			Erosion of natural deposits
Unregulated Parameters		Units	MCL	MCLG		Level Detected	Violation	Highest Level Detected	2014 Average	2014 Range	Violation			Typical Source of Contaminant

(Monitoring not required)					ND/Low-High									
Turbidity	2014	NTU	95%<0.3	NA			15	1.76	ND-15	NO				Naturally occurring and soil runoff
Sodium	2014	mg/l	UR	NE	12-32 2013	NO	73.9	22.7	ND-73.9	NO				Erosion of natural deposits.
Calcium	2014	mg/l	UR	NE			342	264	222-342	NO				Naturally occurring
Hardness	2014	grains/gal	UR	NE			20	15	12-20	NO				Naturally occurring
Conductance	2014	µmhos/cm	UR	NE			543	424	387-543	NO				Naturally occurring

\*Monitoring Violation: One of Orem city's wells was shut down for the winter prior to the arsenic samples being collected for the last quarter of 2014.

Sampling resumed on 6/11/2015 when the well was started. As a result the Orem city is no longer in violation of the arsenic sampling rule.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Vineyard is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

All sources of drinking water are subject to potential contamination by constituents that are naturally occurring or man made. Those constituents can be microbes, organic or inorganic chemicals, or radioactive materials. All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

MCLs are set at very stringent levels. To understand the possible health effects described for many regulated constituents, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

There are many connections to our water distribution system. When connections are properly installed and maintained, the concerns are very minimal. However, unapproved and improper piping changes or connections can adversely affect not only the availability, but also the quality of the water. A cross connection may let polluted water or even chemicals mingle into the water supply system when not properly protected. This not only compromises the water quality but can also affect your health. So, what can you do? Do not make or allow improper connections at your homes. Even that unprotected garden hose lying in the puddle next to the driveway is a cross connection. The unprotected lawn sprinkler system after you have fertilized or sprayed is also a cross connection. When the cross connection is allowed to exist at your home, it will affect you and your family first. If you'd like to learn more about helping to protect the quality of our water, call us for further information about ways you can help.

For more information about our water sources, please visit the following websites to view their individual Consumer Confidence Reports.

Lindon – <http://www.lindoncity.org/>

Orem City – <http://orem.org/index.php/drinking-water/water-quality>

CUWCD - <http://www.cuwcd.com/drinkingwater/utah.htm>